CHILDHOOD IMMUNIZATION FACTS

Immunization Prevents Disease

- Immunization is one of the most effective ways of preventing disease. The level of vaccine-preventable disease has been reduced by more than 99 percent since the introduction of vaccines. Reported cases of vaccine-preventable diseases are at, or near, all-time-low levels.

- Prior to widespread immunization in the United States, infectious diseases killed or disabled thousands of children each year. Tens of thousands of cases of paralytic polio and an average of 450,000 measles cases were reported annually.

- The measles epidemic of 1989-91 affected more than 55,000 people; 11,000 were hospitalized and more than 120 died. A major cause of the measles epidemic was the failure to vaccinate children on time at 12 to 15 months of age.

- The World Health Organization declared the Americas free of polio in 1994. Reported cases have declined by more than 80 percent globally since 1988. These extraordinary results are the direct effect of immunizations against polio.

- Childhood illnesses that could be prevented by immunization are still with us. Approximately 3.5 million cases of varicella (chickenpox) occur each year. This rate is expected to decrease with the introduction of the new vaccine.

- A vaccine for *H. influenzae* type b (Hib) decreased the incidence of Hib meningitis 82 percent between 1985 and 1991.

- In the 1920s, about 125,000 cases and 10,000 deaths were caused by diphtheria each year. In the 1980s, 27 cases were reported, including three fatal cases.

Immunize by Age 2

- Children need 80 percent of their vaccinations in the first 2 years of life. This requires multiple doses of vaccine given in about five visits to a health care provider.

- The year 2000 goal of the Childhood Immunization Initiative is to have at least 90 percent of all children immunized by 2 years of age with the recommended vaccine series. This series includes four doses of diphtheria/tetanus/pertussis (DTP) vaccine, three doses of polio vaccine, and one dose of measles/mumps/rubella (MMR) vaccine.

- In 1994 75 percent of the nation's 2-year-olds received the recommended series of vaccines—the highest level ever recorded. Despite this success, about 25 percent of America's toddlers—or almost 1.4 million 2-year-olds—lack one or more doses of this series.

- A second goal is to have 70 percent of children immunized with the more recently introduced vaccines: hepatitis B, *H. influenzae* type b (Hib), and varicella (chickenpox).

- All 50 States and the District of Columbia have immunization requirements for children entering day care and school. There are no such laws ensuring that children are up to date on their shots by age 2.

- Children who begin the immunization series late are much less likely to complete the series on time than other children. Children who have not received any doses of vaccines by 3 months of age are one-third less likely to be immunized than children who did.

FACTS

Immunization Saves Money

- Immunization is one of the most cost-effective medical interventions available. For every dollar spent on immunization, as many as $29 can be saved in direct and indirect costs.

- For every dollar spent on the measles/mumps/rubella vaccine, $21 are saved.

- For every dollar spent on the diphtheria/tetanus/pertussis vaccine, $29 are saved.

- For every dollar spent on the polio vaccine, $6 are saved.

Why Are Children Underimmunized?

- No single factor accounts for underimmunization, but various risk factors have been identified, including low parental education levels, large family size, low socioeconomic status, nonwhite race, young parental age, use of public clinics, and lack of prenatal care.

- Inadequate access to medical care, deficiencies in the public health care delivery system, and lack of public awareness are other factors contributing to underimmunization.

- Some children miss immunizations because their records are misplaced and parents and providers are not aware of which vaccinations the child has had. Some States have instituted computerized immunization records that will ensure that all children's records are up to date and complete, even if they move or change health care providers.

- Opportunities to vaccinate children may be missed because providers are misinformed about contraindications or are unwilling to give more than two vaccines during the same visit.

When to Vaccinate

- General guidelines for immunizations in the first 2 years of life are as follows. Health care providers determine the best schedule for each child.

  Diphtheria/tetanus/pertussis (DTP): Four vaccinations—at 2, 4, 6, and 15 to 18 months.

  Polio: Three vaccinations—at 2, 4, and 6 to 18 months.

  Measles/mumps/rubella (MMR): One vaccination—at 12 to 15 months.

  Chickenpox: One vaccination—at 12 to 18 months.

  Hepatitis B: Three vaccinations—at 0 to 2 months, 1 to 4 months, and 6 to 18 months.

  H. influenzae *type b (Hib):* Three or four vaccinations—at 2, 4, 6, and 12 to 15 months.

- Catch-up vaccinations can be given if the child did not get the vaccinations at the recommended times. But delays in starting immunization result in less protection against disease.

- In most cases, multiple vaccines can be given without increasing the risk of adverse effects or decreasing the effectiveness of the vaccines.